These remarks do not apply to the education of students intending to make chemistry their profession, who have many opportunities, in the large laboratories of Great Britain and the Continent, of obtaining all the necessary instruction. The Institute of Chemistry, which was founded to improve the status and also the education of professional chemists, requires that its members should have a thoroughly scientific training. Before a candidate for the associateship is admitted to examination, he must bring evidence that he has passed satisfactorily through a systematic course of at least three years' study in the subjects of theoretical and practical chemistry, physics, and elementary mathematics, in some recognized college or school; and before admission to the fellowship he must have passed through three additional years of work in chemistry. It is to be hoped that an example of this kind will ultimately have a good effect in improving the modes of teaching the science in its elementary stages.

There is another class of workers in chemistry who must not be forgotten at the present time, as they have much influence on the life of the world and have been working for ages, but have only recently been recognized. I mean those organisms which are included under the name of microbes. These organisms are capable of producing chemical changes which entirely surpass all the results hitherto obtained by the chemist in his laboratory. That the transformation of sugar into alcohol and carbonic anhydride in the ordinary process of fermentation is due to a living organism, has been known for some years; the important transformation of ammonia into nitrous and nitric acids in the soil has been shown to be due to organisms which have recently been investigated by many chemists; it is possible to transform ammonia into these acids in the laboratory by oxidation under certain conditions and at a high temperature, whereas the organism does the work quite as efficaciously at the common temperature. Other organisms have the power of producing complex organic poisons by the alteration of some of the constituents of the animal body, and the relation of these products to the study of diseases is of the highest possible importance. As we hope to have a discussion on this interesting subject by many eminent authorities, both from the chemical and biological points of view, it will be unnecessary to pursue the subject further, unless it be to urge some of the younger chemists to work at the chemical aspect of bacteriology. They must be prepared for hard work and many disappointments, for the subject is undoubtedly a difficult one.

I cannot conclude this address without reference to the great loss which chemistry has sustained by the death of Prof. A. W. von Hofmann. I had the good fortune to be under him as student and assistant from 1856 until he left this country in 1865; all who worked with him must have been deeply impressed by his capacity for work and his power of inducing work in others. Although perhaps some of us did not appreciate this at the time, yet we feel we owe him a debt of gratitude for his having started us in the right way. The list of papers under his name in the Royal Society Catalogue up the year 1883 is 299, written by himself alone, besides twenty-two joint papers. One of his characteristics which impressed me was his investigation for the purpose of furthering chemical knowledge without any view to practical applications, and I well remember his lecture at the Royal Institution, in 1862, on Mauve and Magenta (which owed so much of their success to his work), in which he produced the original specimen of benzene which had been obtained by Faraday from oil-gas in 1825. He pointed out that Faraday had prepared this substance and investigated its properties without ever supposing that it could have any practical application. The following is the concluding paragraph of the lecture:—

"Need I say any more? The moral of Mauve and Magenta is transparent enough; I read it in your eyes. We understand each other. Whenever in future one of your chemical friends, full of enthusiasm, exhibits and explains to you his newly-discovered compounds, you will not cool his noble ardour by asking him that most terrible of all questions, 'What is its use? Will your compound bleach or dye? Will it shave? May it be used as a substitute for leather?' Let him quietly go on with his work. The dye, the lather, the leather will make their appearance in due time. Let him, I repeat, perform his task. Let him indulge in the pursuit of truth—of truth pure and simple—of truth not for the sake of Mauve, not for the sake of Magenta, let him pursue truth for the sake of truth."

This seems to me the true spirit of the scientific investigator and in many cases the reward consists solely in the consciousness that the investigator has done his duty; in some cases the reward may take a more substantial form, and since the above paragraphs were written I have been informed that Prof. von Hofmann has left a large fortune, the result of the applications of his discoveries in technical chemistry.

NOTES.

WE hope to publish shortly, in the series of "Scientific Worthies," a portrait of Sir Archibald Geikie, whose address as president of the British Association we print to-day. The portrait will be accompanied by a sketch of Sir Archibald's career as a man of science.

THE International Congress of Experimental Psychology began work at University College, Gower Street, on Monday, when an address was delivered by Prof. H. Sidgwick. We propose to give on a future occasion some account of the proceedings.

THE Helvetic Society of the Natural Sciences will hold its seventy-fifth annual meeting at Basel from September 5 to 7. The Basel Society of the Natural Sciences will celebrate its seventy-fifth anniversary at the same time.

MR. J. BRETLAND FARMER, M.A., Fellow of Magdalen College, Oxford, and Demonstrator of Botany in the University, has been appointed Assistant-Professor in Botany at the Royal College of Science, London, as successor to Dr. D. H. Scott, who becomes Honorary Keeper of the Jodrell Laboratory, at the Royal Gardens, Kew.

MR. H. M. BERNARD, M.A., has been elected to the Marshall Scholarship, Royal College of Science, South Kensington, for the ensuing year, in place of Mr. G. Biebner, whose term of office has expired.

MR. J. P. HILL, of the Royal College of Science, South Kensington, and the University of Edinburgh, has been appointed to the Demonstratorship of Biology in the University of Sydney.

Mr. SILVA WHITE has, for reasons of health, resigned his office as secretary and editor to the Royal Scottish Geographical Society, a post he has filled since the institution of the society.

WE regret very much to hear of the death of Dr. H. J. Tylden, whose article on "The bearing of pathology upon the doctrine of the transmission of acquired characters" was printed in NATURE last week. At the beginning of last week he died of typhoid fever. Dr. Tylden had been engaged in investigating the etiology of typhoid fever, and there is no doubt that he thus contracted the disease.

TWO eminent men who had been intimately connected with India died last week—Dr. Forbes Watson and Dr. H. W. Bellew. Dr. Bellew was well known as an Oriental linguist and as the author of various works in which he made important contributions to ethnology. Dr. Forbes Watson acted for many years as Reporter on the Products of India and Director of the India Museum. He did much to give the English people a wider and more accurate knowledge both of the races and the material resources of India.

THE death of Dr. Felice Giordano, of Rome, is announced. He was the head of the Geological Survey of Italy and Chief Inspector of Mines.

THE Glasgow and West of Scotland Technical College has issued its calendar for the year 1892-93.

ON July 27 the eruption of Mount Etna, which on the previous day had increased considerably in activity, was again as violent as during the first few days of the outbreak. Rocks and masses of volcanic *débris* were ejected from the crater to a great height, as well as a quantity of fine ash, which fell in showers over the country. The cloud of smoke over the summit increased, and the subterranean rumblings were so loud and frequent as to make the windows in the houses rattle. The lava streams were also extending. Similar reports were issued on the three following days; but on July 31 a general decrease in the volume of the lava was noted. On August 1 it was stated that the eruption seemed to be subsiding. No underground rumblings were heard, the smoke issuing from the crater was white, and the lava streams moved very slowly, and, in fact, almost stopped. On August 2 the volcano showed some signs of renewed activity, and the lava streams began to flow afresh. The underground rumblings were not, however, so loud as before.

SOME information as to the volcanic eruption in Great Sangir is given in letters sent from Menado, the chief Dutch settlement in the north of the Celebes, from which Sangir is about 300 miles distant. The letters are dated June 12, and were printed in the *Handelsblad*, of Amsterdam, on July 27. According to a summary in a Reuter's telegram, the disaster came with appalling suddenness. At ten minutes past six on the evening of June 7, unannounced by the slightest shock of earthquake, subterranean rumblings, or other seismic warning, a terrific eruption began from the great volcano Gunona Awa, which is not far from Tarvena, the capital of the island. Ashes in immense masses and stones of considerable size soon fell all over the island. Hundreds were killed by this shower, and even those who reached the shelter of their homes were not safe, for nearly everywhere in the country districts the light wooden houses collapsed under the weight of the stones and ashes which quickly settled on the roofs. In the immediate vicinity of the mountain, on the slopes of which are numerous farms and villages with extensive plantations, immense destruction was caused by the great streams of lava, which flowed with astonishing rapidity down into the surrounding valleys. Houses were carried away with all their contents, and many of the occupants met a terrible death in these rivers of molten rock. Besides the hundreds who are known to have lost their lives on the lowlands, between five hundred and a thousand more who were engaged in the rice-fields on the mountain slopes have not been heard from. The crops have been destroyed, the cocoa-nut trees have suffered severely, and in many parts of the island the wells have become dry.

AT the time of our last issue the weather was very settled, and the air very dry, scarcely any rain having fallen for some days. On Friday, however, July 29, the anticyclone began to give way, and the low pressure over the Bay of Biscay extended northwards and over the eastern parts of England, causing thunderstorms in the southern counties. By Sunday, the disturbed weather had extended over the whole country, and rain had fallen at most places, but the area of low barometer was passing away to the eastward, and during the early part of this week the type of weather again became anticyclonic generally, but the sky became cloudy, and rain fell in places; while on Wednesday a depression lay over the North of Scotland, which appeared likely to spread southwards. Temperatures have ranged from 70° to 75° and upwards in the southern districts, but have been considerably lower in the north; the daily maxima frequently not reaching 60°. The *Weekly Weather Report* showed that for the week ending July 30 the temperature only slightly exceeded the average in the North of Scotland. Rainfall was much below the mean, amounting to six to nine-tenths of an inch in most districts, while reckoning from the beginning of the year there is a deficit in every district, amounting to as much as 7·4 inches in the south-west of England.

THE Austrian Meteorological Society has issued an appeal for contributions towards the support of the meteorological observatory on the summit of the Sonnblick. The observatory was established by M. Rojacher in 1886, and completed at the expense of the Austrian Society and the German and Austrian Alpine Club; it has since been maintained at the expense of these two institutions, together with a subvention from the Ministry of Instruction, and aided by a small reserve from the original building fund. The recent death of M Rojacher, and the removal of the Alpine Club from a house on the summit, has thrown such additional expense on the Austrian Society as to endanger the efficient maintenance of the Observatory. The station has already rendered good service to science and has somewhat modified the theory of the nature and origin of storms; several physicists have also conducted experiments there on radiation, atmospheric electricity, and other subjects of considerable importance. We hope, therefore, that the appeal of the Society for funds for the efficient maintenance of the station will meet with entire success.

THE trustees of the South African Museum, in their report for the year 1891, record a serious loss in the mineralogical series of the Museum's collection. On the night of September 7 and 8 the Museum was robbed of the Stonestreet collection of rough diamonds, a separate diamond in singularly hard rock, and several very interesting nuggets of South African gold. The exhibition hall was broken into through one of the small upper windows opening on the higher of the two galleries, and the specially protected table-case, containing the diamonds and gold, forced by shattering the lock. Two men—whose names, A. McEwen and E. Cohen respectively, were already too well known in the criminal records—were convicted of the robbery at the Supreme Court session on the 13th November, and sentenced to four years' hard labour. The police succeeded in recovering 49 of the 173 diamonds belonging to the Stonestreet collection, including most of the larger stones, but among the missing majority are many unusual and abnormal crystalline forms of much interest, collected with great pains by the late Mr. Stonestreet, during the earlier years of mining in Griqualand West. The Du Toit's Pan diamond in indurated rock and the gold nuggets have not been recovered.

IN the course of an interesting address delivered lately at the opening of the new chemical laboratory of the Case School of Applied Science, Prof. C. F. Mabery called attention to the fact that notwithstanding America's abundant supply of crude materials, with cheap fuel in unlimited quantities, and a ready market with an increasing demand, she continues to pay enormous sums for imported products which should be produced at home. Prof. Mabery thinks, however, that the outlook for the immediate future is encouraging. In several directions the manufacture of chemical products has begun, and others, he believes, will follow. There are certain lines along which rapid development may evidently soon be expected, and one of the most promising is sal-soda. Until quite recently the Le Blanc process, which was invented in France to manufacture soda-ash when the supply from natural sources was largely cut off during the French Revolution, has supplied the world since early in the present century. In utilizing all bye-products the great Le Blanc works of Europe have been able to produce soda-ash at a trifling cost. A Le Blanc plant has never been established in America, and probably one never will be. Such a plant requires immense capital, and, besides, a combination of coal, salt, and limestone, that can be found close at hand in but few localities. Within a few years another method, known as the ammonia-soda process, has been put into operation in Europe. The first cost of a plant for this process is not large, and since it furnishes a purer product than the Le Blanc method, it will probably supply a considerable portion of the sal-soda of the future, especially in the United States. The newer method has the especial advantage that it forms bicarbonate of soda direct and very pure. Two plants for this process have been erected in America, one of which has been in operation at Syracuse, N.Y., for several years, and the other has recently been erected in Cleveland. As additional illustrations of the possibilities in store for the United States, Prof. Mabery mentioned the manufacture of porcelain, and the production of artificial dyes and colours from coal-tar.

AN interesting report on the pearl fishery of the Gulf of California is contributed by Mr. C. H. Townsend to the new Bulletin of the United States Fish Commission. The season for pearl fishing begins about the first part of May near Cape St. Lucas, whence operations are gradually carried into the Gulf of California, which is usually entered by May 15. During the summer the entire eastern coast of the peninsula is worked, and in October the base of operations is removed from La Paz, the headquarters of the Pearl Shell Company of Lower California, to Acapulco, where the fishery is continued for two or three months longer. Whatever of romance may hitherto have enshrouded the diver for pearls in the sea, he is now, as described by Mr. Townsend, practically a submarine labourer, who uses all the modern diving paraphernalia available. No longer plunging for sixty seconds into the sun-lit green water that covers a coral bank, he puts on a rubber suit with glass-fronted helmet, and, suitably weighted with lead, descends for hours to gather pearl-oysters, which are hoisted in a wire basket by his companions in the boat above, who supply him through a rubber tube with the air he breathes. The best year at the fisheries in comparatively recent times was 1881. During that year many pearls of extraordinary size and great value were obtained; among them was a black one weighing twenty-eight carats, which sold in Paris for 10,000 dollars.

A VALUABLE report on the petroleum trade of the Caucasus has been sent to the Turkish Government by Aassib, the Turkish Consul-General at Tiflis, and some interesting extracts from it are quoted in the *Board of Trade Journal.* The petroleum springs of the peninsula of Apcheron, not far from the place at present occupied by the town of Baku, were known according to the writer, several centuries before the Christian era, and the phenomena produced by them, totally inexplicable in those barbaric ages, gave rise, he says, to the worship of the Guebres, followers of Zoroaster, which lasted into the nineteenth century, for the temple of the worshippers of eternal fire is seen to the present day. The springs of Balakhani are situated 20 kilometres from Baku on a bare and arid plateau, swept by the winds, at an elevation of about 60 metres above the level of the Caspian Sea. The petroleum lands occupy an area of about 8 kilometres. At the present time Balakhani and Sabountchi possess more than 1000 wells, some of them newly bored, producing in twenty-four hours as much as 400,000 pouds. An era was marked in the history of the naphtha industry by the house of M. Nobel, which started at Baku in 1874, and in the following year purchased a small business and undertook the production of petroleum on a small scale. At that time the conveyance of petroleum to Baku was effected by means of carts and leather bottles. M. Nobel endeavoured to show the absurdity of this primitive method of transport, and recommended that pipes should be constructed, but the majority of the merchants rejected the proposal. He then constructed the first pipe at his own cost, and demonstrated the utility of it to his colleagues, several of whom very soon imitated his example, and Baku has to-day a dozen lines of pipes, each of which costs more than 100,000 roubles. The same house, dissatisfied with the system of shipping petroleum in barrels, proposed to the Kavkaz and Mercury Navigation Company of the Caspian and the Volga that they should build tank boats for the exclusive conveyance of petroleum. This proposal having been rejected, the firm constructed several of these vessels at their own expense. This innovation, of which even the Americans had not yet thought, was accepted by the two petroleum-producing countries, and tank boats, the number of which is constantly increasing, are to be found on all the waters of the civilized world. It is also to M. Nobel that those gigantic reservoirs of iron which contain hundreds of thousands of naphtha products are due. They are to be seen in large numbers at Baku, Batoum, and everywhere else where petroleum is carried in bulk. The series of innovations by M. Nobel do not stop there. With a desire to improve land carriage he proposed to the Griazi-Tsaritsine Railway Company the construction of special tank waggons for the transport of the petroleum, guaranteeing a load for them for several years. The railway authorities scoffed at the idea, and it was by the expenditure of very large sums that the Swedish merchant constructed for his own use the first tank waggons. Scorn was immediately changed to enthusiasm, and to-day thousands of these waggons circulate on the railways of Caucasia and Griazi Tsaritsine.

IN Part xxi. of the Zoological Reports of the Norwegian North Atlantic Expedition, Christiania, 1892, Dr. D. C. Danielssen gives an account of the Crinoids and Echinoids of the North Atlantic. Chief among the former is the beautiful *Bathycrimus carpenteri*, first described as *Ilycrinus carpenteri* by Koren and Danielssen in 1877 from specimens collected by the expedition, and thought to be a new genus, but a careful study and comparison with Herbert Carpenter's description in the report of the *Challenger* Crinoids proved it to belong to *Bathycrinus*. The morphology of this species is very fully described and figured; very interesting are the statements about the apparent formation of "new crown" on specimens which had apparently lost their first crowns; in one of these "the stalk was 110 mm. in height, the crown was 2·5 mm. high, and the root was 20 mm. in length. The radials of the crown were attached to the basals by a pretty broad seam, the basals being concreted and forming a firm ring as upon old individuals; which distinctly showed that while the radials were a new formation, the basals pertained to the old detached crown and formed the true calyx from which the new crown issued." In this specimen the tentacles could not be seen, and it was very difficult to observe the disc, as it was covered by the closed arms which could not without damage be separated from each other, but that a new crown was in course of formation seemed indubitable. In addition to this species of Bathycrinus, *Rhizocrinus lofotensis*, and the following species of Antedon were found:—*A. tenella*, Retzius; *A. petasus*, D. and K.; *A. prolixa*, Dun. and Sladen; *A. quadrata*, Carp.; and *A. eschrichti*, Muller. Fourteen species of Echinida are mentioned, of which *Echinus alexandri*, Dan. and Kor., is redescribed and figured.

THE additions to the Zoological Society's Gardens during the past week include a Hainan Gibbon (*Hylobates hainanus*) from Southern China, presented by Mr. Julius Newman; a Humboldt's Lagothrix (*Lagothrix humboldti*) from the Upper Amazons, presented by Mr. Chas. Clifton Decconson, F.Z.S.; a Red Howler (*Mycetes seniculus*) from New Granada, presented by Mr. John F. Chittenden, C.M.Z.S.; a Garnett's Galago (*Galago garnetti*) from East Africa, presented by Commander H. J. Keene, R.N.; a Bennett's Wallaby (*Halmaturus bennettii* ♂) from Tasmania, presented by Lieutenant E. A. Findlay, R.N.R.; a Raccoon (*Procyon lotor*) from North America, presented by Mr. A. C. Cooke; a Short-toed Eagle (*Circaetus gallicus*) from Southern Europe, presented by Mr. B. Vincent; a Leadbeater's Cockatoo (*Cacatua leadbeateri*), a Slender-billed Cockatoo (*Licmetis tenuirostris*) from Australia, presented by Mrs. Phillips; a Rock Thrush (*Monticola saxatilis*), two Solitary Thrushes (*Monticola cyanus*), European; a Common Jay

(*Garrulus glandarius*), an Ortolan Bunting (*Emberiza hortulana*), a Blackbird (*Turdus merula*), a Nightingale (*Daulias luscinia*), British, presented by Mr. E. Cossavella; a Common Jay (*Garrulus glandarius*), a Natterjack Toad (*Bufo calamita*), six Crested Newts (*Molge cristata*), three Palmated Newts (*Molge palmata*), British; three Sand Lizards (*Lacerta agilis*), five Yellow-bellied Toads (*Bombinator bombinus*), an Edible Frog (*Rana esculenta*), European, presented by Mr. G. B. Coleman; four Common Snakes (*Tropidonotus natrix*), British, presented by Count Pavoleri, F.Z.S.; a Malbrouck Monkey (*Cercopithecus cynosurus*) from West Africa, a Barbary Wild Sheep (*Ovis tragelaphus* ♂) from North Africa, two Common Squirrels (*Sciurus vulgaris*), British, deposited; two black Apes (*Cynopithecus niger*) from Celebes, purchased.

OUR ASTRONOMICAL COLUMN.

SOLAR OBSERVATIONS AT THE R. OSSERVATORIO DEL COLLEGIO ROMANO.—Prof. Tacchini, in the *Memorie della Società degli Spettroscopisti Italiani*, gives a tabular statement of the prominences, faculæ, and spots visible on the sun's surface during the first three months of the present year. Taking the case of the number of prominences, no less than 300 were observed during this period, 161 appearng in northern and 139 in southern latitudes. During the first two months prominences were more numerable in the south hemisphere, amounting to an excess of 7 and 5 respectively, but in March as many as 78 were recorded for the northern as against 44 for the southern. The latitudes for the regions of greatest frequency were + 40° + 30° and − 20° − 30°.

For the faculæ 28, 24, and 18 (total 70) were recorded for the northern latitudes, while very nearly the same number (76 = 20 + 18 + 38) was observed on the southern hemisphere. In both cases the record for latitudes ± 50° ± 40° was one, the greatest number appearing in latitudes ± 10° ± 30°.

The total number of groups of spots recorded was 80, of which 38 were observed north of the equator. Curiously enough the month of February only contributed 21 out of this number, 34 being recorded for January; the region of greatest frequency occupied the zones ± 10° ± 30°.

Allowing for the very unfavourable season for observations, a considerable increase over the preceding quarter will be at once noticed. The relative amount of spotted area shows an enormous increase for February, the numbers for the months commencing with January being 79.79, 153.61, and 61.57.

A REMARKABLE PROMINENCE.—Mr. J. Fényi, in the *Memorie della Società degli Spettroscopisti Italiani*, gives an account of an unusually large prominence that was visible at Kalocsa, on May 5 last. At 10h. 25m., Kalocsa mean time, the prominence was very small, but later it developed very considerably, forming itself into a set of small bands, clearly inclined towards the equator. At 11h. 55m. the observed height was 139″, there being no indication of a rapid ascent. At 12h. 11m. a very rapid upward motion had already begun to make itself visible, and by 12h. 17m. 34s. the height reached was 287″, extending to 317″ 1m. 11s. later, when the velocity of ascent was 306 km. per second. After a few minutes the lower parts to the height of 360″ became invisible, but the smooth portions ascended at 12h. 21m. 4s., with a velocity of 368 km. per second to a height of 531″. This latter measurement was made at 12h. 29m. 25s., and soon after the object was no more seen. The actual height attained, then, may be reckoned about 381,800 km., or 237,126 miles. At the terminaton of this eruption, it was noticed that the prominences at 127° and 79°, and even the one at 106°, which very nearly coincided with the position of the eruption itself, still retained the same forms, having apparently suffered no change by this enormous disturbance; no faculæ or spots either were recorded which could in any way be connected with this outbreak.

THE TRAPEZIUM IN THE ORION NEBULA.—During the first three months of the present and preceding year Dr. L. Ambronn, of the Göttingen Observatory, has undertaken a measurement of the distances and position angles between the four bright stars forming the trapezium in the great nebula of Orion. The results which he has obtained are recorded in the 3103 number of *Astronomische Nachrichten*.

Commencing with the star θ′ Orionis, which is here designated *a*, and taking the others in cyclic order following the direction opposite to that of the motion of the hands of a watch, we find these designated by *b*, *d*, and *c* respectively. The accompanying table, for the sake of comparison, shows the position angles and distances for the equinox 1870 from the measurements of W. Struve, Dembowski, O. Struve, Hall, and Ambronn.

	W. Struve. 1836·15	Dembowski. 1867·04.	O. Struve. 1870·0.	Hall. 1877·7.	Ambronn. 1891 6.
	° ′	° ′	° ′	° ′	° ′
ab	311 45	311 22	311 32	311 4	311 15
ac	60 29	61 38	60 22	61 8	60 58
ad	340 20	342 23	342 5	342 15	342 31
bc	95 35	96 2	95 36	95 34	95 26
bd	31 48	32 11	31 43	32 55	33 1
cd	299 34	299 33	299 34	299 18	299 15
	″	″	″	″	″
ab	13·002	12·907	13·049	13·116	13·250
ac	13·344	13·385	13·276	13·453	13·698
ad	16·854	16·681	16·876	16·768	16·997
bc	21·414	21·582	21·410	21·758	22·038
bd	8·706	8·706	8·705	8·772	8·915
cd	19·227	19·340	19·237	19·363	19·576

NEW VARIABLE STARS.—A short note communicated by Prof. Pickering to *Astronomische Nachrichten*, No. 3104, informs us that six new variable stars in the southern sky have been discovered on examination of the photographs of stellar spectra taken at Arequipa in Peru. The following are the constellations, positions, and the dates on which the photographs were taken:—

Constell.	α 1900 h. m.	δ 1900 ° ′	Date.
Horologium	2 49·5	− 50 10	Sept. 10, 1891
Octans	6 0	− 86 30	Sept. 11, 1891
Bootes	14 22·1	+ 5 2	April 26, 1892
Octans	17 30	− 86 45	Aug. 31, 1891
Sagittarius	19 49·8	− 29 27	Oct. 3, 1891
Tucana	23 53·2	− 65 56	Aug. 25, 1891

All these stars when at a maximum are as bright or brighter than the 8th magnitude, but only one, that in Sagittarius, is a catalogue star (Cord. G.C. 27271, Mag. 8½).

THE BRITISH ASSOCIATION COMMITTEE ON ELECTRICAL STANDARDS.

IN view of the hoped-for presence of Prof. von Helmholtz and other distinguished foreigners at this year's meeting of the British Association in Edinburgh, it will probably be recognized as suitable to take up and continue the discussion on new electromagnetic units for practical purposes, which was begun last year at Cardiff.

I therefore beg to contribute the following notes and to conclude by moving some resolutions.

One great fact brought into prominence by the practical development of electricity is the analogy or reciprocity between the electric and the magnetic circuit, and this is the fact which it behoves us to emphasize in the naming of fresh units.

The magnetic circuit has as yet no authorized names applied to it. The electric circuit is well provided, but perhaps one or two improvements can be made.

(1) THE ELECTRIC CIRCUIT.

The first point on which I consider that practical men would do well to insist is that names shall be given to the complete things dealt with, rather than to mere coefficients. Thus of all units with which they are concerned there can be no doubt but that *volt* and *ampere* are the most prominent. These are the active things with which Electrical Engineers have to deal, and these are the things for which meters exist on every wall in an electric lighting station. The ohm, or unit coefficient of resistance, is comparatively academic in character; it is a constant of a coil of wire or of an underground lead, it is nothing vivid